

REMARKSI. Introduction

In response to the Office Action dated July 29, 2003, claims 2, 14 and 26 have been cancelled, and claims 1, 3-5, 13, 15-17, 25 and 27-29 have been amended. Claims 1, 3-13, 15-25 and 27-36 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Prior Art RejectionsA. The Office Action Rejections

In paragraphs (1)-(2) of the Office Action, claims 1-36 were rejected under 35 U.S.C. §102(b) as being anticipated by Fuller.

Applicant's attorney respectfully traverses these rejections in light of the amendments above and the arguments below.

B. Applicant's Independent Claims

Independent claims 1, 13, and 25 are generally directed to providing a visual cue for placing a first geometric entity in a three-dimensional space represented in a computer-implemented graphics program. Claim 1 is representative and comprises:

- (a) displaying a two-dimensional viewport of the three-dimensional space on a display device attached to a computer;
- (b) selecting a first point in the two-dimensional viewport;
- (c) based on the first point, displaying a visual cue comprising a second geometric entity placed in the two-dimensional viewport, wherein the visual cue indicates a coordinate system plane within the three-dimensional space, and the coordinate system plane identifies a plane where the first geometric entity is to be placed;
- (d) using the visual cue, selecting a second point on the coordinate system plane in the two-dimensional viewport; and
- (e) placing the first geometric entity on the coordinate system plane based on the second point.

C. The Fuller Reference

The Fuller reference discloses various portions of a user manual for AutoCAD Release 10. The cited portions include pages from Chapter 8, "Drawing Aids and Modes," Chapter 11, "Intermediate Drawing Commands," and Chapter 16, "Introduction to AutoCAD 3-D."

D. The Applicant's Invention is Patentable Over the References

The Applicant's invention, as recited in independent claims 1, 13 and 25, is patentable over the references, because it contains limitations not taught in the references. Specifically, none of the references teach or suggest the use of visual cues as recited in Applicant's claims.

The Office Action cites Fuller as disclosing all the features of the claims. Specifically, the Office Action states the following:

Referring to claim 1, Fuller discloses a method for providing a visual clue for placing a first geometric entity in a 3D space represented in a computer-implemented graphics program (page 16-1 "3D Autocad") comprising displaying a 2D viewport of the 3D space on a display (page 8-1); selecting a first point in the 2D viewpoint (page 8-2, first paragraph); based on the first point, displaying a visual cue in the 2D viewport that indicates a coordinate system plane (Figure 8-3) where the coordinate plane identifies a plane where the first geometric entity is to be placed (Figure 8-3); using the visual cue, selecting a second point in the 2D viewport (page 8-2, first paragraph); and placing the first geometric entity on the coordinate system plane based on the second point (page 8-2, third paragraph).

Referring to claim 2, Fuller discloses where the visual clue comprises a second geometric entity (Figure 8-1).

Referring to claim 3, Fuller discloses where the second geometric entity comprises a circle in the 3D space oriented on the coordinate system (Figure 8-3).

Referring to claim 4, Fuller discloses where the second geometric entity comprises an ellipse displayed in the viewport and the center of the ellipse is on the first point (Figure 8-11).

Referring to claim 5, Fuller discloses where tick marks are displayed on the geometric entity (Figure 8-11).

Referring to claim 6, Fuller discloses where a distance between tick marks may be specified (page 8-16, see "Tick Spacing").

Referring to claim 7, Fuller discloses a temporary representation of the first geometric entity originating at the first point and ending at a cursor location and the second point is selected at the cursor location (page 8-2, third paragraph).

Referring to claim 8, Fuller discloses where the orientation of the first geometric entity snaps to a particular angle from the first point (page 8-7, see "Rotate").

Referring to claim 9, Fuller discloses where the visual clue displays the degree of an angle (page 8-7, see "Quadrant").

Referring to claim 10, Fuller discloses where the visual clue indicates available angles for the orientation of the geometric entity (page 8-7, see "Quadrant").

Referring to claim 11, Fuller discloses where an increment value for snap angles may be specified (page 8-7, see "Rotate").

Referring to claim 12, Fuller discloses where the particular angle may be specified by the user (page 87, see "Rotate").

Referring to claims 13-24 and 25-36, the remarks presented above with respect to claims 1-12 apply equally to these groups of claims.

Applicant's attorney respectfully disagrees.

Nowhere does Fuller teach or suggest a visual cue comprising a second geometric entity placed in the two-dimensional viewport, wherein the visual cue indicates a coordinate system plane within the three-dimensional space, and the coordinate system plane identifies a plane where the first geometric entity is to be placed. Consequently, Fuller does not recognize that such a visual cue can assist the user in placing another geometric entity by identifying different planes within three-dimensional space by altering its shape so that it appears to be parallel or lying on a particular plane.

Indeed, such visual cues are never mentioned in Fuller. For example, Figure 8-1 of Fuller, which was cited against dependent claim 2, merely shows different viewports with different views and zooms of the same drawing, while Figure 8-3 of Fuller merely shows an object snap. Neither figure shows a visual cue comprising a second geometric entity placed in the two-dimensional viewport, as recited in Applicant's claims.

Thus, Applicant's attorney submit that independent claim 1, 13 and 25 are allowable over Fuller. Further, dependent claims 3-12, 15-24 and 27-36 are submitted to be allowable over Fuller in the same manner, because they are dependent on independent claims 1, 13, and 25, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 3-12, 15-24 and 27-36 recite additional novel elements not shown by Fuller.

III. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

Respectfully submitted,

GATES & COOPER LLP
Attorneys for Applicant

Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, California 90045
(310) 641-8797

Date: October 29, 2003

By: [Signature]
Name: George H. Gates
Reg. No.: 33,500

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